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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,147

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Hiroshi Ishibuchi

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EXAMINER

CUMBESS, YOLANDA R

ART UNIT

PAPER NUMBER

3651

NOTIFICATION DATE

DELIVERY MODE

03/09/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/590,147	Applicant(s) ISHIBUCHI ET AL.	
	Examiner YOLANDA CUMBESS	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) 27-36,42-48,51 and 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-41,49 and 50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 37-41, and 49-50 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "warp direction of the fabric structure that is arranged in the same direction as the winding length" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant recites that “the fabric structure is formed by lapping said wire or wires one on another such that a warp direction of the fabric structure is arranged in a same direction as a winding length direction of the belt.”

It is unclear as to what Applicant means by the warp direction is the same direction as the winding length, since this feature is not clearly referenced in the drawings, and is only briefly mentioned in the specification. How is the structure of Fig. 1A-1C different from Fig. 2A-2B? Appropriate clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37-41 and 49-50 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura (Japanese Patent Publication No. JP 11-105171 A) in view of Meadows (US Patent No. 3,924,482). Relative to claims 37-41, Kitamura discloses: a heat resistant laminated conveyor belt (Fig. 1) comprising: a belt core layer made (1)(Fig. 1) by a heat resistant non-metallic fiber substrate (Para. 0014, 0018; 0024) which has been impregnated with a fluororesin dispersion and then dried and sintered, an intermediate layer (2)(Fig. 1) laminated on said belt core layer (1) via an adhesive layer (intermediate layer comprises an adhesive layer) and comprising a fluororesin film (Para. 0014; 0021; 0024 "film layer of fluororesin"), said intermediate layer (2) comprises a heat resistant non-metallic fiber substrate being impregnated with a fluororesin dispersion and then dried and sintered (Para. 0020-0021); a surface layer (3)(Fig. 1) laminated on said intermediate layer (2) via an adhesive layer comprising a fluororesin film (Para. 0024); said surface layer (3) has a fabric structure using an element wire or wires (0023; 0018) comprising a ferrous metal ("metal fibers" made of stainless steel or shape memory alloy), or has a structure in which said element wire or wires are arranged together (fibers are woven together, Para. 0016; 0018-0019); and the surface of the surface layer (3) having a hardness corresponding to steel and having an uneven surface shape (Fig. 1)(see multi-filament, mono-filament woven fabric structure); said ferrous metal is a steel selected from iron steel, carbon steel, or stainless steel ("stainless steel", Para. 0018); said heat resistant non-metallic fiber substrate is selected from at least one of a glass fiber, carbon fiber, aramide fiber, aromatic allylate fiber and polyparaphenylenbenzobisoxazole (PBO) fiber (Para. 0018);

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said adhesive layer is a resin film layer of a polytetrafluoroethylene (PTFE) resin, denatured poly tetrafluoroethylene (denatured PTFE) resin, tetrafluoroethylene hexafluoropropylene copolymer (FEP) resin, tetrafluoroethylene perfluoroalkoxyethylene copolymer (PFA) resin, ethylene tetrafluoroethylene copolymer (ETFE) resin, or ethylenechlorotrifluoroethylene copolymer (ECTFE) resin (0021); and one or both of said intermediate layer (2) and belt core layer (1) on the inner side of said surface layer (3) are a plurality of layers (Fig. 1)(Para. 0028).

Relative to claims 49 and 50, the disclosure of Kitamura includes the method of manufacturing a heat resistant laminated conveyor belt comprising: a first step of forming a belt core layer (1) by impregnating a heat resistant non-metallic fiber with a fluoro-resin dispersion and then dried and sintered (Para. 0021; 0024); a second step of forming an intermediate layer (2) by impregnating a heat resistant non-metallic fiber with a fluoro-resin dispersion, then drying, sintering, and then lapping it over said belt core layer via an adhesive layer comprising a fluoro-resin film, and a third step of lapping a surface layer (3) over said intermediate layer (2) via an adhesive layer comprising a fluoro-resin film (0018-0023), said surface layer (3) having a fabric structure including an element wire or wires made of a ferrous metal or having a structure in which said element wire or wires are arranged together (Para. 0018-0020), bonding said surface layer (3) together with said belt core layer (1) and intermediate layer (2) by a heat sealing lamination process (Para. 0023-0025), the surface of the surface layer (3) having a hardness corresponding to steel and having an uneven surface shape; and one or both of said intermediate layer (2) and belt core layer (1) on the inner side of said

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surface layer (3) are a plurality of layers lapped one on another via an adhesive layer or layers (Fig. 3) and then subjecting said layers (1, 2) to the heat sealing lamination process (Para. 0025-0028).

Kitamura does not expressly disclose: the fabric structure is formed by lapping said wire or wires one on another such that a warp direction of the fabric structure is arranged in a same direction as a winding length direction of the belt.

Meadows provides a fabric structure (22)(Fig. 1-3) that is formed by lapping the wire or wires (23)(Fig. 1) one on another such that a warp direction of the fabric structure (22) is arranged in a same direction as a winding length direction ("parallel to length of strip") of the belt (20)(Fig. 1)(Col. 2, lines 38-45), as a well known implementation of providing an improved belt structure having a high strength woven cover such that the belt does not deteriorate or fail in harsh operating environments (Col. 1, lines 25-50). See also Yazawa et al (US Patent No. 4,052,243); Col. 5, lines 1-15.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kitamura with the lapping the wires one on another such that the warp direction is arranged in the same direction as the winding length direction as taught in Meadows since it is well known means for providing a improved belt structure having a high strength woven cover such that the belt does not deteriorate or fail in harsh operating environments.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOLANDA CUMBESS whose telephone number is (571)270-5527. The examiner can normally be reached on MON-THUR 9AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GENE CRAWFORD can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art
Unit 3651

/YOLANDA CUMBESS/
Examiner, Art Unit 3651